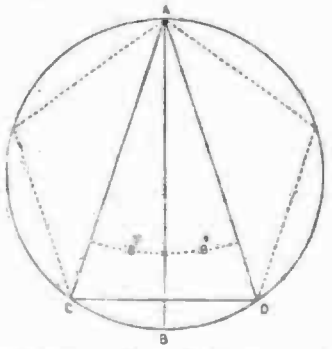
Improvements, would easily have been enabled to accomplish the rest.

Next in point of interest and importance to the above magnificent as well as useful design, this of Mr. Pearson's appears to present the greatest claim to general attention. Nay, should it be found worthy of support, and the plan of passing the river by the southern railways, at the point and in the manner referred to, be at some time adopted—an event than which many things are less probable,—then it would seem that the advantages and accommodation of both schemes would be greatly augmented. WATCHMAN.

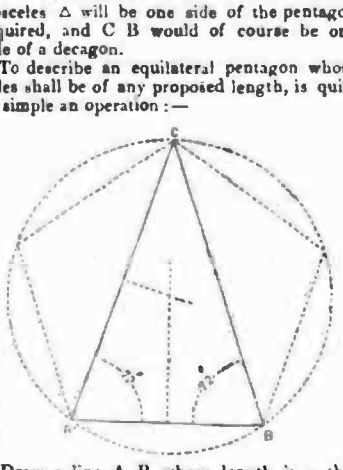
TO CONSTRUCT A PENTAGON WITHIN A CIRCLE.

IN THE BUILDER of September 13th, a method of constructing an equilateral pentagon within a circle, is given, which I think is rather complicated, and I beg to submit the following:—



Describe the circle and its diameter A B by a scale protractor, with its centre at A: set off 18° on each side of this diameter, and draw the lines A C and A D: the base C D of this isosceles Δ will be one side of the pentagon required, and C B would of course be one side of a decagon.

To describe an equilateral pentagon whose sides shall be of any proposed length, is quite as simple an operation:—



Draw a line A B, whose length is = that of one side of proposed pentagon: draw A C and B C at an ∠ of 72° with A B; then A, B, and C will be three points in the circle. The centre is of course easily found by bisecting any two of the sides of the Δ, and drawing perpendiculars thereto: the point of their intersection is the centre required. (Euclid, Prop. xi. Book. iv.) S. CLEGG, jun.

THE PERPETUAL MOVEMENT.—A civil engineer of Bordeaux, named De Vignernon, according to the *Courrier de la Gironde*, has discovered a perpetual motion. His theory is said to be to find in a mass of water, at rest, and contained within a certain space, a continual force [in alternate decomposition and recomposition?], able to replace all other moving powers. The *Courrier* declares that this has been effected, and that the machine invented by M. de Vignernon "functions" admirably. A model of the machine was to be exposed at Bordeaux for three days, previous to the inventor's departure with it for London.

CONDITION OF LAMBETH.

IT is very well to talk of improving Kennington-common, but that might well give way to the removal of all those stench factories situated between Lambeth Church and Vauxhall, such as the bone burners, the potteries, and various others of like nature, which ought not to be allowed in such a locality, and are abominations of the vilest nature. How all this could have been tolerated so long in this age of improvement is a mystery,—nearly opposite, too, to those *costly* Houses of Parliament. The volumes of black smoke issuing from the potteries and factories make strangers hold up their hands.

It is high time that a general clearance should take place at that part, from the river's edge back to the railway, and in its place should be erected a handsome terrace, with carriage-drive in a line with the Bishop's-walk, with squares or streets leading from the river to the railway at back at stated distances. These buildings would form pleasant residences, and would let as fast as they could be finished, and thereby greatly increase the value of property in the parish, as well as add materially to the appearance from the river, and to the general respectability of that part of the parish, as well as the increase of the health of the inhabitants. R. M.

ROMAN REMAINS RECENTLY DISCOVERED IN LEICESTER.

WE mentioned the discoveries in Leicester last week briefly. The locality is a close called the Cherry-orchard. A letter in the *Gentleman's Magazine* of 1786 had pointed out the existence of a pavement here, and it was in searching for this that the present more extensive discoveries have been made. Mr. T. L. Walker, the architect, who has superintended the excavations, has favoured us with some notes, from which we learn that a pavement was bared on the first day of the operations, about 15 feet square, consisting of tesellæ about 1 inch square, of two colours.—grey and red; the centre representing two interlaced squares of four courses of red tesellæ, within two larger squares—one of five, the other and outer one of four courses—of red. This not agreeing with the one given, a further search was made, and to the north of this, at about 24 feet from its axis, a very beautiful semicircular pattern was disclosed, executed in very small tesellæ of four colours, viz., blue, red, brown-pink, and white, representing in the centre a shell pattern, in the two divisions of which, next the line of the diameter of the semicircle, are dolphins swimming towards the centre. This shell pattern is bounded all round by the guilloche ornament, outside of which is a vandyke of black and white, bounded by stripes of grey and red tesellæ, about 1 inch square. On the south-western side of this pavement a stone pedestal was laid carefully down on the tesellæ, which were uninjured under it: this pedestal seems to be executed in Ketton-stone, and is 3 feet 5 inches high, and consists of a quasi-Attic base 9 inches high, a shaft 1 foot 6½ inches high, diminished upwards, an astragal and neck together about 4 inches high, and a capital with square abacus 8½ inches high: in both the top and bottom bed is a dowel-hole about 2 inches square. This pedestal has been presented by Dr. Noble to the Museum, where it is now deposited. Eastward of the semicircular pavement, and about 16 feet from its centre, a rich border in fine tesellæ was discovered, which seems to have been the boundary of this apartment, making the whole length about 28 feet, and the whole width about 18 feet. A little further to the north another pavement was found, consisting of a chess-board pattern of red and grey, bounded by two squares of red; the whole pavement being 14 feet square.

Still the pattern described not having been found, the excavations were continued, when several other pavements were discovered.

It is rather remarkable that no foundations of either main or partition walls have yet been found, except one of an angular shape to the north of the main line of apartments, near to which a hollow pipe, 15 inches long, filled with concrete, and of an oblong section, the corners being rounded off, was found standing on end, and it is considered *in situ*, with two oblong holes in two of its sides, the other two sides being scored diamondwise in stripes about one inch broad.

Mr. Walker is now preparing to remove three of the best portions to the local museum, which he intends to effect bodily and without pouring a false matrix over the surface, as is usual in removing, by which the colours are often ruined. It will require great care, as the concrete on which the tesellæ are laid is very thin, 1½ inch only, and has been spread on the soil.

SCULPTURAL DECORATION IN THE CITY.

ON the occasion of the annual festivities at Guildhall in November, the City architect has usually gathered together some choice specimens of modern sculpture to adorn the adjacent apartments. On the last occasion, the arrangement was particularly successful, and did honour to a sculptor to whom England may point with great satisfaction, we mean Mr. Lough. At the end of an apartment constructed for the purpose, amidst floral decorations, was placed a copy of Shakspeare's Monument at Stratford, displaying the bust of the immortal teacher; and on pedestals on either side were ranged Mr. Lough's fine embodiments of some of his wonderful creations.—Macbeth; Lady Macbeth; Hamlet, the Dane; Portia, the ingenious; the villain Iago; Edgar; gentle Ophelia; Titania, the fairy queen; mischievous Puck, and "trickey" Ariel. It was an excellent idea, and was carried out most successfully. The whole of these statues, by the way, with the exception of the last three, have been executed by Mr. Lough, in marble, for Sir Matthew White Ridley. The Ariel is in marble in the large banqueting-room at Stafford House. In another part of the Guildhall Mr. Bunning had set up a clever modelled representation of Thorvaldsen's noble Lion, in the rock at Lucerne.

THE OLD COLLEGE OF PHYSICIANS.

TYLOR'S BATHS AND METAL WARE.

"Not far from that most celebrated place,
Where angry justice shows her awful face,*
Where little villains must submit to fate,
That great ones may enjoy the world in state,—
There stands a dome, majestic to the sight,
And sumptuous arches bear its oval height;
A golden globe, placed high with artful skill,
Seems to the distant sight,—a gilded pill."

THIS is the old College of Physicians, in Warwick-lane, Newgate-street, which was built about 1680, from the designs of Sir Christopher Wren, and is now a meat market, and the manufactory of Messrs. Tylor and Sons. The street, like the building, has seen some strange changes, between the time when, as Stow says, the "king-maker," Warwick, "came with 600 men, all in red jackets, embroidered with ragged staves before and behind, and was lodged in Warwick-lane; at whose house there were often six oxen eaten at a breakfast,"†—and the present day, when oxen are sold there instead of eaten.

A search for a good bath apparatus led us to penetrate its encumbered recesses the other day, and we found much to interest us.

The circular vestibule of the college, now surrounded by meat-stalls, is 40 feet in diameter. The theatre, octangular in plan, is above that. An elevation, section, and two plans of this portion of the building are given in Elmes's "Life of Wren" (p. 450). The dining-room, now Messrs. Tylor's show-room, has a handsomely-decorated ceiling in panels, formed of plaster foliage and flowers, and here too are the gallery and other fittings of the library, removed when the latter apartment was cleared out for the formation of the market. The staircase to this gallery is a good piece of work.‡

Messrs. Tylor, the proprietors of the manu-

* The Old Bailey.
† This residence gave the lane its name.
‡ The college continued to hold its meetings here till 1825.

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